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## NOTICE OF ALLOWANCE AND FEE(S) DUE

30431 7590 06/18/2010

STMICROELECTRONICS, INC.  
MAIL STATION 2346  
1310 ELECTRONICS DRIVE  
CARROLLTON, TX 75006

EXAMINER

MERCEDES, DISMERY E

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 06/18/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/993,877

11/05/2001

Hakan Ozdemir

99-S-190 (1678-22-1)

8286

TITLE OF INVENTION: DATA-STORAGE DISK HAVING FEW OR NO SPIN-UP WEDGES AND METHOD FOR WRITING SERVO WEDGES ONTO THE DISK

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

NO

\$1510

\$300

\$0

\$1810

09/20/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

30431 7590 06/18/2010

STMICROELECTRONICS, INC.  
MAIL STATION 2346  
1310 ELECTRONICS DRIVE  
CARROLLTON, TX 75006

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/993,877 11/05/2001 Hakan Ozdemir 99-S-190 (1678-22-1) 8286

TITLE OF INVENTION: DATA-STORAGE DISK HAVING FEW OR NO SPIN-UP WEDGES AND METHOD FOR WRITING SERVO WEDGES ONTO THE DISK

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 09/20/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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MERCEDES, DISMERY E 2627 360-075000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,877	11/05/2001	Hakan Ozdemir	99-S-190 (1678-22-1)	8286
30431	7590	06/18/2010	EXAMINER	
STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006			MERCEDES, DISMERY E	
			ART UNIT	PAPER NUMBER
			2627	
DATE MAILED: 06/18/2010				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/993,877	OZDEMIR, HAKAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	DISMERY E. MERCEDES	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amend filed 3/16/2010.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-32 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Independent Claim 1, is allowable over the prior art of record since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a storage disk comprising *a servo wedge located at the beginning of the disk sector, the servo wedge having a portion that does not include a zero-frequency field and that is detectable during a spin-up of the disk without a prior detection of a zero-frequency field, and the servo wedge operable to provide an initial position of a read-write prior to any read-write operation head relative to the disk after detection of the portion.*

Independent Claim 3, is allowable over the prior art of record since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a storage disk comprising *servo wedges each detectable by a read head upon initial spin-up prior to any read-write operation and each detectable by a read head during a read-write operation to identify a respective disk sector; and no zero-frequency spin-up fields associated with the servo wedges.*

Independent claim 5 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a storage disk comprising *servo wedges detectable without a zero-frequency field upon an initial spin-up located in the disk sectors and each having a pre-synchronization-mark section with substantially the same bit pattern and length as the pre-synchronization-mark section of the other servo wedges; and no servo wedge having a pre-synchronization-mark section*

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*with a significantly different bit pattern or a significantly different length as compared to the pre-synchronization-mark section of the other servo wedges*, in combination with the other limitations in the claim.

Independent claim 8 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a storage disk comprising *the location identifier detectable during a read-write operation and the other portion detectable during a read head positioning operation and detectable during an initial read write head positioning; and no zero-frequency spin-up fields*.

Independent claim 14 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a disk drive system comprising *a processor coupled to the servo channel and operable to detect one of the servo wedges without a zero-frequency field during spin up operation of the disk while or after the disk attains an operating speed but before the servo channel recovers servo data from any other of the servo wedges during a read operation*, in combination with the other limitations in the claim.

Independent claim 20 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a disk drive system comprising *a processor coupled to the servo channel and operable to detect the servo wedge without a zero-frequency field during a spin up of the disk and prior to any read operation while or after the disk attains an operating speed but before the servo channel recovers any servo data*, in combination with the other limitations in the claim.

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Independent claim 25 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857), taken alone or in combination do not teach or suggest a method comprising *writing onto the surface of the data-storage disk no zero-frequency spin-up field that is associated with the servo wedge, the no frequency spin-up field operable to coordinate positioning of a read head prior to any read or write operation*, in combination with the other limitations in the claim.

Independent claim 29 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857) taken alone or in combination do not teach or suggest: *writing a second servo wedge onto the surface of the data-storage disk to define a second disk sector that is operable to store file data, the second servo wedge including third servo data that is operable to identify the second disk sector before a read of file data from or a write of file data to the second disk sector*, in combination with the other limitations in the claim.

Independent claim 30 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857) taken alone or in combination do not teach or suggest a method comprising writing a second servo wedge onto the surface of the data-storage disk to define a second disk sector that is operable to store file data, *the second servo wedge including second servo data that is operable to identify the second disk sector during a read of file data from or a write of file to the second disk sector and wherein the second servo data is operable to identify the second disk sector during the initial positioning of the head over the disk*, in combination with the other limitations in the claim.

Independent claim 31 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857) taken alone or in combination do not teach or suggest a method

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comprising writing a second servo wedge onto the surface of the data-storage disk to define a second disk sector that is operable to store file data, *the second servo wedge including second servo data that is operable to identify the second disk sector during a read of file data from or a write of file to the second disk sector and wherein the second servo data is unable to identify the second disk sector during the initial positioning of the head over the disk*, in combination with the other limitations in the claim.

Independent claim 32 is allowable over the prior art since the cited references, in particular Tuttle et al. (US 5,796,535), Leis et al. (US 5,862,005), Patapoutian et al. (US 5,661,760), Hull et al. (US Patent No. 6, 262, 857) taken alone or in combination do not teach or suggest a storage disk comprising *servo wedges each detectable by a read head upon initial spin-up and identifying a respective data sector upon a non-spin-up operation; and no zero-frequency spin-up fields*.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Heydari et al. (US 7,027,247); Ozdemir (US 7,206,149); Ozdemir (US 7,382,568); Heydari et al. (US 7,430,082); Moran et al. (US 6,738,205); Bergquist et al. (US 6,031,672); Genheimer et al. (US 5,216,343); Tsukada et al. (US 5,379,166); Christiansen et al. (US 6,639,748); Lewis et al. (US 4,424,543); Hertrich (US 4,208,679); Le et al. (US 6,038,097); Emori (US 5,442,499)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISMERY E. MERCEDES whose telephone number is (571) 272-7558. The examiner can normally be reached on Monday - Friday, from 7:00am - 3:00pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dismery E. Mercedes/  
Primary Examiner, Art Unit 2627